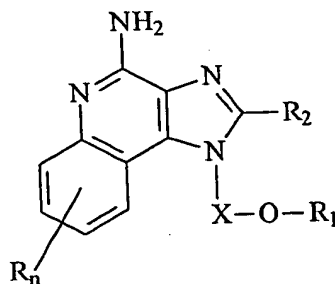


WHAT IS CLAIMED IS:

1. A compound of the formula (I):



(I)

wherein: X is -CHR<sub>3</sub>-, -CHR<sub>3</sub>-alkyl-, or -CHR<sub>3</sub>-alkenyl-;

R<sub>1</sub> is selected from the group consisting of:

-heteroaryl;

-heterocyclyl;

-R<sub>4</sub>- heteroaryl; and

-R<sub>4</sub>-heterocyclyl;

R<sub>2</sub> is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

-alkyl-Y- alkenyl;

-alkyl-Y-aryl; and

- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;

-halogen;

5  
10  
-N(R<sub>3</sub>)<sub>2</sub>;  
-CO-N(R<sub>3</sub>)<sub>2</sub>;  
-CO-C<sub>1-10</sub> alkyl;  
-CO-O-C<sub>1-10</sub> alkyl;  
-N<sub>3</sub>;  
-aryl;  
-heteroaryl;  
-heterocyclyl;  
-CO-aryl; and  
-CO-heteroaryl;

15  
20  
R<sub>4</sub> is alkyl or alkenyl, which may be interrupted by one or more -O-  
groups;  
each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;  
each Y is independently -O- or -S(O)<sub>0-2</sub>;  
n is 0 to 4; and  
each R present is independently selected from the group consisting of C<sub>1-10</sub>  
alkyl, C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl;  
or a pharmaceutically acceptable salt thereof.

20

2. A compound or salt of claim 1 wherein R<sub>1</sub> is -(CH<sub>2</sub>)<sub>0-3</sub>-heteroaryl.

25  
3. A compound or salt of claim 2 wherein the heteroaryl is selected from the group  
consisting of 2-pyridyl, 3-pyridyl, 4-pyridyl, 2-thiazolyl, 2-pyrimidinyl, 4-pyrimidinyl, 4-  
triazolyl, 2-benzofuranyl, 2-indolyl, 3-carbazolyl, 2-furanyl, 4-isoquinolinyl, 4-isoxazolyl,  
and 4-pyrazolyl

30  
4. A compound or salt of claim 1 wherein X is -CH(alkyl)(alkyl)- wherein the alkyl  
groups can be the same or different.

5. A compound or salt of claim 1 wherein X is -CH<sub>2</sub>-CH<sub>2</sub>-.

6. A compound or salt of claim 1 wherein X is  $-\text{CH}(\text{C}_2\text{H}_5)(\text{CH}_2)-$ .

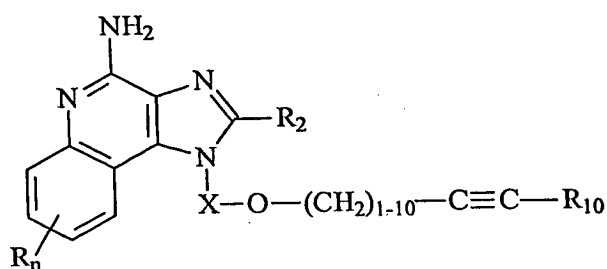
7. A compound or salt of claim 1 wherein  $\text{R}_2$  is H.

5 8. A compound or salt of claim 1 wherein  $\text{R}_2$  is alkyl.

9. A compound or salt of claim 1 wherein  $\text{R}_2$  is  $-\text{alkyl}-\text{O}-\text{alkyl}$ .

10. A compound of the formula (II)

10



(II)

wherein: X is  $-\text{CHR}_3-$ ,  $-\text{CHR}_3\text{-alkyl-}$ , or  $-\text{CHR}_3\text{-alkenyl-}$ ;

15

$\text{R}_{10}$  is selected from the group consisting of heteroaryl and heterocyclyl;

$\text{R}_2$  is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

20

-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

-alkyl-Y-alkenyl;

25

-alkyl-Y-aryl; and

-alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

- OH;
  - halogen;
  - N(R<sub>3</sub>)<sub>2</sub>;
  - CO-N(R<sub>3</sub>)<sub>2</sub>;
  - 5        -CO-C<sub>1-10</sub> alkyl;
  - CO-O-C<sub>1-10</sub> alkyl;
  - N<sub>3</sub>;
  - aryl;
  - heteroaryl;
  - 10        -heterocyclyl;
  - CO-aryl; and
  - CO-heteroaryl;
- n is 0 to 4;  
each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;  
15        each Y is independently -O- or -S(O)<sub>0-2</sub>-; and  
          each R present is independently selected from the group consisting of C<sub>1-10</sub>  
          alkyl, C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl;  
          or a pharmaceutically acceptable salt thereof.
- 20        11.    A compound or salt of claim 10 wherein R<sub>10</sub> is selected from the group consisting  
          of heteroaryl and substituted heteroaryl.
12.    A compound of claim 11 wherein the heteroaryl is selected from the group  
          consisting of 2-pyridyl, 3-pyridyl, 4-pyridyl, 2-thiazolyl, 4-pyrazolyl, 3-furanyl, 2-thienyl,  
25        and 2-pyrimidinyl.
13.    A compound or salt of claim 10 wherein X is -CH(alkyl)(alkyl)-, wherein the  
          alkyl groups can be the same or different.
- 30        14.    A compound or salt of claim 10 wherein X is -CH<sub>2</sub>-CH<sub>2</sub>-.
15.    A compound or salt of claim 10 wherein X is -CH(C<sub>2</sub>H<sub>5</sub>)(CH<sub>2</sub>)-.

16. A compound or salt of claim 10 wherein R<sub>2</sub> is H, alkyl, or alkyl-O-alkyl.

17. A compound selected from the group consisting of:

5

1-(2-{{3-(isoquinolin-4-yl)-2-propynyl}oxy}ethyl)-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-(2-{{3-(1,3-thiazol-2-yl)-2-propynyl}oxy}ethyl)-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

10

1-{2-[3-(1*H*-4-pyrazolyl)propoxy]ethyl}-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-[2-(3-pyrimidin-2-ylpropoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-[2-(3-pyridin-4-ylpropoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-[2-(3-pyridin-2-ylpropoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-{2-[3-(1,3-thiazol-2-yl)propoxy]ethyl}-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

15

1-[2-(3-pyridin-3-ylpropoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-[2-(3-pyrimidin-5-ylpropoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-{2-[(1-benzyl-1*H*-1,2,3-triazol-4-yl)methoxy]ethyl}-1*H*-imidazo[4,5-*c*]quinoline-4-amine;

20

1-{2-[(1-benzyl-1*H*-1,2,3-triazol-5-yl)methoxy]ethyl}-1*H*-imidazo[4,5-*c*]quinoline-4-amine;

1-[2-{{1-[(phenylsulfanyl)methyl]-1*H*-1,2,3-triazol-4-yl}methoxy}ethyl]-1*H*-imidazo[4,5-*c*]quinoline-4-amine;

1-[2-{{1-[(phenylsulfanyl)methyl]-1*H*-1,2,3-triazol-5-yl}methoxy}ethyl]-1*H*-imidazo[4,5-*c*]quinoline-4-amine;

25

1-[2-(benzo[*b*]furan-2-ylmethoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-[2-(pyridin-3-ylmethoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-[2-(pyridin-2-ylmethoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-[2-(pyridin-4-ylmethoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-{2-[(3,5-dimethylisoxazol-4-yl)methoxy]ethyl}-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

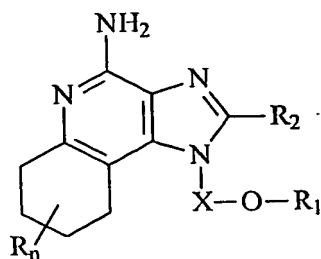
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1-(2-{{3-(pyrimidin-2-yl)-2-propynyl}oxy}ethyl)-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-(2-{{3-(pyrid-4-yl)-2-propynyl}oxy}ethyl)-1*H*-imidazo[4,5-*c*]quinolin-4-amine;  
 1-(2-{{3-(fur-3-yl)-2-propynyl}oxy}ethyl)-1*H*-imidazo[4,5-*c*]quinolin-4-amine;  
 4-{3-[2-(4-amino-1*H*-imidazo[4,5-*c*]quinolin-1-yl)ethoxy]-propyn-1-yl}  
 thiophen-2-ylcarboxaldehyde;  
 1-(2-{{3-(pyrid-2-yl)-2-propynyl}oxy}ethyl)-1*H*-imidazo[4,5-*c*]quinolin-4-amine;  
 1-{2-methyl-1-[(pyrid-2-yloxy)methyl]propyl}-1*H*-imidazo[4,5-*c*]quinoline-4-  
 amine;  
 1-{1-[(pyrid-2-yloxy)methyl]propyl}-1*H*-imidazo[4,5-*c*]quinoline-4-amine;  
 1-[2-(9*H*-carbazol-3-yloxy)propyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;  
 1-{2-[(3-thien-2-ylprop-2-ynyl)oxy]ethyl}-1*H*-imidazo[4,5-*c*]quinolin-4-amine;  
 1-{2-[(1-methyl-1*H*-indol-2-yl)methoxy]ethyl}-1*H*-imidazo[4,5-*c*]quinolin-4-  
 amine;  
 1-[2-(3-thien-2-ylpropoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;  
 2-methyl-1-[2-(3-pyridin-3-ylpropoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinoline-4-amine;  
 2-butyl-1-[2-(3-pyridin-3-ylpropoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinoline-4-amine;  
 1-[2-(tetrahydrofuran-2-ylmethoxy)propyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;  
 1-{2-[(5-chloro-1-benzothien-3-yl)methoxy]propyl}-1*H*-imidazo[4,5-*c*]quinolin-4-  
 amine;  
 1-{2-[(3-nitropyridin-2-yl)oxy]propyl}-1*H*-imidazo[4,5-*c*]quinolin-4-amine;  
 1-(2-methyl-1-{{3-nitropyridin-2-yl}oxy}methyl)propyl)-1*H*-imidazo[4,5-  
*c*]quinolin-4-amine;  
 1-(1-{{5-chloro-1-benzothien-3-yl}methoxy}methyl)-2-methylpropyl)-1*H*-  
 imidazo[4,5-*c*]quinolin-4-amine;  
 2-(2-methoxyethyl)-1-[2-(3-pyridin-3-ylpropoxy)ethyl]-1*H*-imidazo[4,5-  
*c*]quinolin-4-amine; and  
 2-methyl-1-[2-(3-pyridin-3-ylpropoxy)ethyl]-6,7,8,9-tetrahydro-1*H*-imidazo[4,5-  
*c*]quinolin-4-amine;

or a pharmaceutically acceptable salt thereof.

18. A compound of the formula (III)



(III)

5

wherein: X is -CHR<sub>3</sub>-, -CHR<sub>3</sub>-alkyl-, or -CHR<sub>3</sub>-alkenyl-;

R<sub>1</sub> is selected from the group consisting of:

-heteroaryl;

-heterocyclyl;

10

-R<sub>4</sub>- heteroaryl; and

-R<sub>4</sub>-heterocyclyl;

R<sub>2</sub> is selected from the group consisting of:

-hydrogen;

-alkyl;

15

-alkenyl;

-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

20

-alkyl-Y-alkenyl;

-alkyl-Y-aryl; and

- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;

25

-halogen;

-N(R<sub>3</sub>)<sub>2</sub>;

-CO-N(R<sub>3</sub>)<sub>2</sub>;

-CO-C<sub>1-10</sub> alkyl;  
 -CO-O-C<sub>1-10</sub> alkyl;  
 -N<sub>3</sub>;  
 -aryl;  
 -heteroaryl;  
 -heterocyclyl;  
 -CO-aryl; and  
 -CO-heteroaryl;

R<sub>4</sub> is alkyl or alkenyl, which may be interrupted by one or more -O- groups;

each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;

each Y is independently -O- or -S(O)<sub>0-2</sub>;

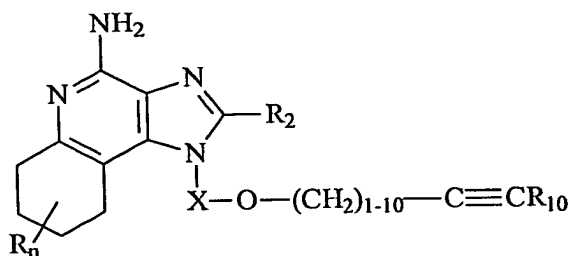
n is 0 to 4; and

each R present is independently selected from the group consisting of C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl; or a pharmaceutically acceptable salt thereof.

19. A compound or salt of claim 18 wherein R<sub>2</sub> is H or alkyl.

20. A compound or salt of claim 18 wherein R<sub>2</sub> is -alkyl-O-alkyl.

21. A compound of the formula (IV):



(IV)

wherein: X is -CHR<sub>3</sub>-, -CHR<sub>3</sub>-alkyl-, or -CHR<sub>3</sub>-alkenyl-;

R<sub>10</sub> is selected from the group consisting of heteroaryl and heterocyclyl;



**R<sub>2</sub>** is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

5

-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

-alkyl-Y-alkenyl;

10

-alkyl-Y-aryl; and

-alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;

-halogen;

15

-N(R<sub>3</sub>)<sub>2</sub>;

-CO-N(R<sub>3</sub>)<sub>2</sub>;

-CO-C<sub>1-10</sub> alkyl;

-CO-O-C<sub>1-10</sub> alkyl;

-N<sub>3</sub>;

20

-aryl;

-heteroaryl;

-heterocyclyl;

-CO-aryl; and

-CO-heteroaryl;

25

each **R<sub>3</sub>** is independently H or C<sub>1-10</sub> alkyl;

each **Y** is independently -O- or -S(O)<sub>0-2</sub>;

**n** is 0 to 4; and

each **R** present is independently selected from the group consisting of C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl;

30

or a pharmaceutically acceptable salt thereof.

22. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 1 and a pharmaceutically acceptable carrier.
- 5 23. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 10 and a pharmaceutically acceptable carrier.
24. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 17 and a pharmaceutically acceptable carrier.
- 10 25. A method of inducing cytokine biosynthesis in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 1 to the animal.
26. The method of claim 25 wherein the cytokine is IFN- $\alpha$ .
- 15 27. A method of inducing cytokine biosynthesis in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 10 to the animal.
28. The method of claim 27 wherein the cytokine is IFN- $\alpha$ .
- 20 29. A method of treating a viral disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 1 to the animal.
30. A method of treating a neoplastic disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 1 to the animal.
- 25 31. A method of treating a viral disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 10 to the animal.
- 30 32. A method of treating a neoplastic disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 10 to the animal.

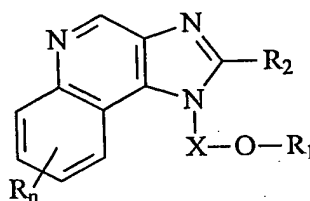
33. A method of inducing cytokine biosynthesis in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 17 to the animal.

34. The method of claim 33 wherein the cytokine is IFN- $\alpha$ .

35. A method of treating a viral disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 17 to the animal.

36. A method of treating a neoplastic disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 17 to the animal.

37. A compound of the formula (V):



(V)

wherein:  $X$  is  $-\text{CHR}_3-$ ,  $-\text{CHR}_3\text{-alkyl-}$ , or  $-\text{CHR}_3\text{-alkenyl-}$ ;

$R_1$  is selected from the group consisting of:

-heteroaryl;

-heterocyclyl;

$-\text{R}_4\text{-heteroaryl}$ ;

$-\text{R}_4\text{-heterocyclyl}$ ; and

$-(\text{CH}_2)_{1-10}\text{-C}\equiv\text{C-R}_{10}$ ;

$R_2$  is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

-heteroaryl;  
-heterocyclyl;  
-alkyl-Y-alkyl;  
-alkyl-Y-alkenyl;  
-alkyl-Y-aryl; and  
-alkyl or alkenyl substituted by one or more substituents selected  
from the group consisting of:

-OH;  
-halogen;  
-N(R<sub>3</sub>)<sub>2</sub>;  
-CO-N(R<sub>3</sub>)<sub>2</sub>;  
-CO-C<sub>1-10</sub> alkyl;  
-CO-O-C<sub>1-10</sub> alkyl;  
-N<sub>3</sub>;  
-aryl;  
-heteroaryl;  
-heterocyclyl;  
-CO-aryl; and  
-CO-heteroaryl;

R<sub>4</sub> is alkyl or alkenyl, which may be interrupted by one or more -O-  
groups;

each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;

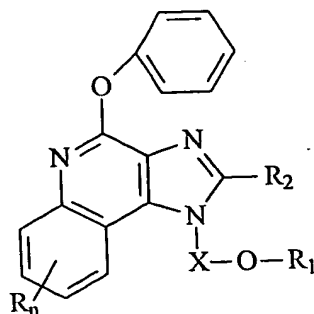
R<sub>10</sub> is heteroaryl or heterocyclyl;

each Y is independently -O- or -S(O)<sub>0-2</sub>;

n is 0 to 4; and

each R present is independently selected from the group consisting of C<sub>1-10</sub>  
alkyl, C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl;  
or a pharmaceutically acceptable salt thereof.

38. A compound of the formula (VI):



(VI)

5      wherein:      **X** is  $-\text{CHR}_3-$ ,  $-\text{CHR}_3\text{-alkyl-}$ , or  $-\text{CHR}_3\text{-alkenyl-}$ ;

**R<sub>1</sub>** is selected from the group consisting of:

-heteroaryl;

-heterocyclyl;

-R<sub>4</sub>- heteroaryl;

10      -R<sub>4</sub>-heterocyclyl; and

$-(\text{CH}_2)_{1-10}\text{-C}\equiv\text{C-R}_{10}$ ;

**R<sub>2</sub>** is selected from the group consisting of:

-hydrogen;

-alkyl;

15      -alkenyl;

-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

20      -alkyl-Y- alkenyl;

-alkyl-Y-aryl; and

- alkyl or alkenyl substituted by one or more substituents selected  
from the group consisting of:

-OH;

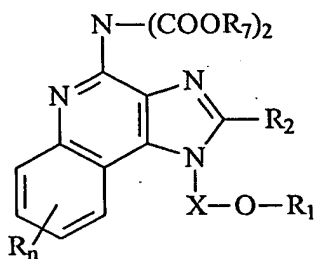
25      -halogen;

-N(R<sub>3</sub>)<sub>2</sub>;

$-\text{CO}-\text{N}(\text{R}_3)_2$ ;  
 $-\text{CO}-\text{C}_{1-10}$  alkyl;  
 $-\text{CO}-\text{O}-\text{C}_{1-10}$  alkyl;  
 $-\text{N}_3$ ;  
 $-\text{aryl}$ ;  
 $-\text{heteroaryl}$ ;  
 $-\text{heterocyclyl}$ ;  
 $-\text{CO}-\text{aryl}$ ; and  
 $-\text{CO}-\text{heteroaryl}$ ;

- $\text{R}_4$  is alkyl or alkenyl, which may be interrupted by one or more  $-\text{O}-$  groups;  
 each  $\text{R}_3$  is independently H or  $\text{C}_{1-10}$  alkyl;  
 $\text{R}_{10}$  is heteroaryl or heterocyclyl;  
 each Y is independently  $-\text{O}-$  or  $-\text{S}(\text{O})_{0-2}-$ ;  
 n is 0 to 4; and  
 each R present is independently selected from the group consisting of  $\text{C}_{1-10}$  alkyl,  $\text{C}_{1-10}$  alkoxy, hydroxy, halogen and trifluoromethyl; or a pharmaceutically acceptable salt thereof.

39. A compound of the formula (VIII):



(VIII)

wherein: X is  $-\text{CHR}_3-$ ,  $-\text{CHR}_3\text{-alkyl-}$ , or  $-\text{CHR}_3\text{-alkenyl-}$ ;

- $\text{R}_1$  is selected from the group consisting of:  
 $-\text{heteroaryl}$ ;  
 $-\text{heterocyclyl}$ ;

-R<sub>4</sub>- heteroaryl; and

-R<sub>4</sub>-heterocyclyl;

R<sub>2</sub> is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

-alkyl-Y- alkenyl;

-alkyl-Y-aryl; and

- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;

-halogen;

-N(R<sub>3</sub>)<sub>2</sub>;

-CO-N(R<sub>3</sub>)<sub>2</sub>;

-CO-C<sub>1-10</sub> alkyl;

-CO-O-C<sub>1-10</sub> alkyl;

-N<sub>3</sub>;

-aryl;

-heteroaryl;

-heterocyclyl;

-CO-aryl; and

-CO-heteroaryl;

R<sub>4</sub> is alkyl or alkenyl, which may be interrupted by one or more -O- groups;

each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;

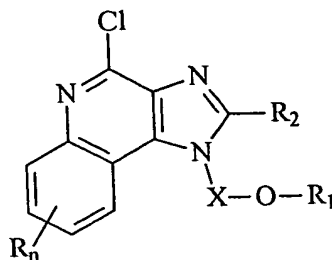
each Y is independently -O- or -S(O)<sub>0-2</sub>;

n is 0 to 4;

each **R** present is independently selected from the group consisting of C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl; and  
**R**<sub>7</sub> is *tert*-butyl or benzyl;  
or a pharmaceutically acceptable salt thereof.

5

40. A compound of the formula (IX)



(IX)

10

wherein: **X** is -CHR<sub>3</sub>-, -CHR<sub>3</sub>-alkyl-, or -CHR<sub>3</sub>-alkenyl-;

**R**<sub>1</sub> is selected from the group consisting of:

-heteroaryl;

-heterocyclyl;

15

-R<sub>4</sub>- heteroaryl; and

-R<sub>4</sub>-heterocyclyl;

**R**<sub>2</sub> is selected from the group consisting of:

-hydrogen;

-alkyl;

20

-alkenyl;

-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

25

-alkyl-Y- alkenyl;

-alkyl-Y-aryl; and



- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;

-halogen;

-N(R<sub>3</sub>)<sub>2</sub>;

-CO-N(R<sub>3</sub>)<sub>2</sub>;

-CO-C<sub>1-10</sub> alkyl;

-CO-O-C<sub>1-10</sub> alkyl;

-N<sub>3</sub>;

-aryl;

-heteroaryl;

-heterocyclyl;

-CO-aryl; and

-CO-heteroaryl;

R<sub>4</sub> is alkyl or alkenyl, which may be interrupted by one or more -O- groups;

each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;

each Y is independently -O- or -S(O)<sub>0-2</sub>;

n is 0 to 4; and

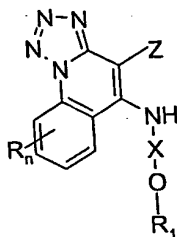
each R present is independently selected from the group consisting of C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl; or a pharmaceutically acceptable salt thereof.

41. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 18 and a pharmaceutically acceptable carrier.

42. A method of inducing cytokine biosynthesis in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 18 to the animal.

43. The method of claim 42 wherein the cytokine is IFN- $\alpha$ .

44. A method of treating a viral disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 18 to the animal.
45. A method of treating a neoplastic disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 18 to the animal.
46. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 21 and a pharmaceutically acceptable carrier.
47. A method of inducing cytokine biosynthesis in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 21 to the animal.
48. The method of claim 47 wherein the cytokine is IFN- $\alpha$ .
49. A method of treating a viral disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 21 to the animal.
50. A method of treating a neoplastic disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 21 to the animal.
51. A compound of the formula (VII):



(VII)

- wherein:
- Z** is  $\text{NH}_2$  or  $\text{NO}_2$ ;
- X** is  $-\text{CHR}_3-$ ,  $-\text{CHR}_3\text{-alkyl-}$ , or  $-\text{CHR}_3\text{-alkenyl-}$ ;
- R<sub>1</sub>** is selected from the group consisting of:
- heteroaryl;
  - heterocyclyl;

-R<sub>4</sub>- heteroaryl; and

-R<sub>4</sub>-heterocyclyl;

R<sub>4</sub> is alkyl or alkenyl, which may be interrupted by one or more -O- groups;

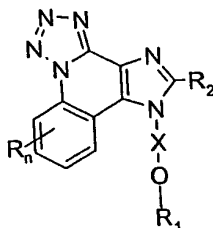
each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;

n is 0 to 4; and

each R present is independently selected from the group consisting of C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl; or a pharmaceutically acceptable salt thereof.

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52. A compound of the formula (XLIV):



(XLIV)

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wherein:

X is -CHR<sub>3</sub>-, -CHR<sub>3</sub>-alkyl-, or -CHR<sub>3</sub>-alkenyl-;

R<sub>1</sub> is selected from the group consisting of:

-heteroaryl;

-heterocyclyl;

-R<sub>4</sub>- heteroaryl; and

-R<sub>4</sub>-heterocyclyl;

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R<sub>2</sub> is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

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-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

-alkyl-Y- alkenyl;  
-alkyl-Y-aryl; and  
- alkyl or alkenyl substituted by one or more substituents selected  
from the group consisting of:

5

-OH;

-halogen;

-N(R<sub>3</sub>)<sub>2</sub>;

-CO-N(R<sub>3</sub>)<sub>2</sub>;

-CO-C<sub>1-10</sub> alkyl;

10

-CO-O-C<sub>1-10</sub> alkyl;

-N<sub>3</sub>;

-aryl;

-heteroaryl;

-heterocyclyl;

15

-CO-aryl; and

-CO-heteroaryl;

R<sub>4</sub> is alkyl or alkenyl, which may be interrupted by one or more -O-  
groups;

each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;

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each Y is independently -O- or -S(O)<sub>0-2</sub>;

n is 0 to 4; and

each R present is independently selected from the group consisting of C<sub>1-10</sub>  
alkyl, C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl;  
or a pharmaceutically acceptable salt thereof.

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